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ABSTRACT

A series of studies was conducted to investigate the nature of children's goals and the role of goals in children's competence in peer relations. First, a conceptual framework was devised which consisted of eight goal types reflecting social-interpersonal and task-related achievement aspects of game playing: task mastery, approach-oriented performance, avoidant performance, rule-oriented, approach-oriented relationship, avoidant relationship, self-protection, and dominance goals. Second, a 50-item, game-playing goals questionnaire was constructed. Items represented each of the eight goal types. In an initial study, the goals questionnaire was administered to 529 third- through sixth-grade students. Factor analysis revealed a four-factor solution and suggested four goal types: performance, relationship, avoidance, and rule-oriented goals. Replication studies involving 369 fifth- and sixth-graders and 575 third- through sixth-grade students produced results similar to those of the initial study, but with a weaker rule-oriented factor. The second replication explored the use of Harter question and Likert scale formats. Also examined were indexes of item variability and endorsement frequencies for items. In addition to sex differences in goal orientations, grade level and sociometric status differences in children's game-playing goals were found, with the positive contribution of relationship goals and the negative contrbution of performance goals to peer status declining over grade. A table and several figures complete the paper. (RH)

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Goals, Games, and Social Competence: Effects of Sex, Grade Level, and Sociometric Status

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Recent research on social competence in children's peer relations reflects increased attention to social-cognitive and motivational-affective factors underlying the ability to interact competently with others (e.g., Asher & Renshaw, 1981; Dodge, 1980; Dodge & Frame, 1982; Ladd & Oden, 1979; Taylor, 1982). Consistent with this perspective, the present research addresses the idea that individual differences in children's social competence may be due to differences in the goals children pursue in their social interactions with peers. The assumption here is that social incompetence, as reflected in inappropriate behavior and peer rejection may be linked to the adoption of goals which are maladaptive or inappropriate to the social situation.

The notion that social interaction involves purposive and goal-directed actions has been emphasized in a number of previous conceptual definitions of children's social competence (e.g., O'Malley, 1977; Weinstein, 1969). However, only recently have some investigators begun to directly examine the nature and development of children's goals and the relationship of goals to competence. For example, there is now some evidence to suggest that differences in social behavior and competence may be associated with differences in the degree to which children value social-interpersonal versus non-social or task-oriented goals (e.g., Ford, 1982; Nakamura & Finck, 1980). Ford (1982) found that adolescents who placed relatively high priority on social goals, such as having a lot of friends, as compared to nonsocial goals, such as getting good grades in school, tended to receive higher ratings of social competence from teachers and peers. In addition, recent literature on achievement motivation and learned helplessness suggests that differences in children's achievement patterns may be associated with differences in their choices of goals in achievement situations (e.g., Dweck & Elliott, 1983; Maehr & Nicholls, 1980; Maehr, 1983). Preliminary research by Dweck and associates (cited in Dweck & Bempechat, 1983) suggests that children who display learned helpless responses--that is, children who give

up in the face of task failure because they believe they have no control over the outcome--may tend to adopt a goal which focuses on avoiding a negative judgment of their competence. By contrast, mastery-oriented children --that is, children who show task persistance and improved problem-solving efforts--may adopt a goal of attaining a positive judgment of their competence or focus on a learning goal of acquiring new skills and knowledge.

Renshaw and Asher (1983) recently examined sociometric status differences in children's goals. Here, sociometric status was used as an outcome index of social competence in children's peer relations. Renshaw and Asher interviewed popular and unpopular elementary school children about their goals for various hypothetical social situations. Children's goal statements were then evaluated with respect to the dimensions of friendliness and assertiveness. Results revealed modest but significant status differences in children's goals; high-status children were more likely than low-status children to suggest friendly-assertive goals.

Although this evidence tends to support the importance of goals as a factor underlying children's competence, there are still only a few studies addressed to the topic. The present research was thus designed to shed further light on the nature of children's goals and the role of goals in children's social competence in peer relations.

In this paper, we will first present a framework we've developed for conceptualizing children's goals in game-playing contexts. Next, we will describe a questionnaire we created to assess children's goals in game playing situations. Because this is a newly developed instrument we will describe the psychometric findings, highlighting especially the interesting factor structure that emerged.

Finally, we will discuss research findings on the relationship between the goals measure and individual difference variables, including age, sex, and sociometric status.

In developing our goals questionnaire, we believed that it was important to take into account the social context in which goals are pursued. Our assumption here was that the adaptiveness of particular goals must be determined relative to the social situation or context. With this in mind, we decided to examine children's goals with respect to one specific context--that of game-playing with school peers.

For a number of reasons, game-playing represents a useful and ecologically valid context for studying children's goals for peer interaction. First, school children's peer interactions frequently take place within the context of non-academic activities involving play and games (i.e., recess, physical education). Since game-playing activities are less structured and less highly supervised than academic tasks, they provide more opportunities for children to engage in social interactions and to develop peer preference patterns. The game context also requires children to coordinate a variety of different and sometimes competing goals. For example, children might have goals related to their interactions with peers (e.g., getting along well with other players). It is our belief that the priorities children place on different goals influence their patterns of behavior in game situations and in turn the manner in which they are perceived and evaluated by peers.

Our first step was to develop a framework for conceptualizing potentially meaningful dimensions of children's game-playing goals (Taylor & Asher, 1984). As shown in Table 1, this conceptual framework consisted of eight goal types reflecting social-interpersonal and task-related achievement aspect of game playing.

The task mastery goal type focuses on the process rather than the outcomes of game-playing and includes goals such as learning how to play the game or getting better at the game. By contrast, the two types of performance goals are more outcome-oriented in nature. The approach-oriented performance goal, for example, focuses on winning or showing others you're a good player, whereas the avoidant performance goal focuses on such concerns as not making mistakes or not looking clumsy or dumb. The rule-oriented goal type reflects concerns about rule compliance by other players - e.g., that other children play fairly and that players not cheat at the game.

The relationship goals, like the performance goals, are of two types. The approach-oriented relationship goal focuses on having positive interpersonal contacts, such as getting along well with other players or making new friends. The avoidant relationship goal focuses on concerns such as not being left out or not getting into arguments with other players. The self-protection goal reflects concerns about protecting oneself against anticipated hostility from peers--for example, not letting other players push you around or tell you what to do. Finally, the dominance goal reflects desires to control or dominate the game activities--for example telling other kids how to play the game or deciding the game rules.

The final game-playing goals questionnaire consisted of a total of 50 items. Each of the eight goal types was represented. Each item on the questionnaire was presented in a structured alternative response format originally developed by Harter (1982) for her Perceived Competence Scale for Children. For example, the item shown in Figure 1 describes two different ways children might feel about the goal of winning. The children described on the left side of the page feel that winning the game is really important, whereas the children described on the right side of the page don't care much about winning. Children responded to the items

by first deciding which description is most like them and then indicating whether the description is really true or sort of true for them. Each item was scored on a scale from 1 to 4 going from right to left across the page, with 1 indicating low importance and 4 indicating high importance of the goal. Harter points out that this format legitimizes each of the response alternatives by implying that about half the children feel one way and about half the children feel the opposite way with respect to the item. Her research suggests that items presented in this manner tend to reduce the child's tendency to give socially desirable responses.

In our initial study, we administered the goals questionnaire to 529 third- through sixth-grade students (276 male, 253 female) from 20 classrooms in two elementary schools. We did a factor analysis to learn whether the factor structure coresponded to our initial eight-goal framework. This analysis revealed a four-factor solution accounting for 72% of the variance. The pattern of item loadings on the four factors was interpretable in terms of a more general version of our original framework and suggested the following four goal types: performance goals, relationship goals, avoidance goals, and rule-oriented goals. Contrary to our original conceptual framework, the task mastery, self-protection, and dominance items failed to emerge as conceptually distinct goal types. Instead these items loaded at weak to moderate levels on the performance, relationship, and rule-oriented factors.

Table 1 shows the pattern of factor loading along with an abbreviated version of each item. The letters in parentheses indicate how each item was categorized with respect to our original eight-category goals framework. As can be seen, all of the original approach-oriented performance items had moderate to high loadings on Factor 1. This is consistent with our conceptualization of a game-playing goal orientation focusing on enhancing one's own outcomes in the

game. All of the approach-oriented relationship items loaded together on Factor 2, along with some of the original rule-oriented items which seem to be consistent with the focus on facilitating positive interpersonal relationships in the game situation. The original performance-avoidant and relationship-avoidant items loaded together on Factor 3, rather than emerging as distinct goal types. This suggests a single avoidant goal dimension reflecting anxieties or concerns about both social and task-related aspects of game playing. The fourth factor to emerge in the analysis consisted of three rule-oriented items reflecting concerns about potential rule violations by other players. In addition, two dominance items had weak loadings on this factor.

Two replication studies have since been conducted. One study involved a sample of 369 fifth and sixth graders, and the other study included 575 third- through sixth-grade students. Factor analyses of the data for these two samples yielded the same factor pattern found in the original study for the performance, relationship, and avoidance factors. The rule-oriented factor, however, proved to be somewhat unstable and failed to emerge consistently across studies. These factor-analytic findings, together with those of the first study, suggest that the game-playing goals questionnaire has a relatively stable factor structure reflecting meaningful dimensions of elementary-school children's goal orientations in game situations.

In addition to determining the factor structure of the goals questionnaire, the second replication study was designed to explore the utility of the Harter question format as compared to an alternative Likert scale format. We decided to address this question because we found in our initial study that about 5% of the children (N=30), mostly third graders, were unable to correctly complete

the questionnaire and later had to be dropped from the sample. Although this constituted a relatively small proportion of the subjects, we later found that this group was also lower in sociometric status than the remaining subjects. We were concerned, then, that the loss of subjects in this way might attenuate any substantive findings with respect to the relationship between goals and peer status.

To examine this issue further, we had half of the students complete the goals questionnaire using the Harter format, and the remaining students completed the measure with a Likert scale format. Figure 2 shows the Likert scale version of the Figure 1 item about winning. Here, the item is rated on a 4-point scale from strongly disagree to strongly agree. Our expectation was that this particular format would be more familiar and therefore less difficult for the students to learn.

It should be noted first that the factor analytic results were quite similar under the two response formats and, as noted earlier, closely replicated the structure found in the first study. Our results also indicated that the Likert format did indeed result in fewer incorrect or incomplete questionnaires; there were only two invalid cases for the Likert format as compared to seven cases with the Harter format. At the same time, however, the loss rate for the Harter format was considerably less in this study than it had been in our initial investigation, perhaps due to greater attention to this problem in training the examiners.

We also examined certain indexes of item variability in order to determine the extent to which social desirability biases might be present in children's responses. Inspection of the item level responses for the two formats indicated that the item means differed little, ranging from 2.0 to 3.5 for the Harter format

and from 2.1 to 3.4 for the Likert format. As was found in our first study, the means for the relationship items were consistently higher than those found for the other items. The standard deviations also differed little, ranging from .86 to 1.22 for the Harter format and from .73 to 1.18 for the Likert format. The standard deviations were generally lower for the Likert format, especially on the relationship items. For the most part, however, both formats showed adequate item variability to the extent that the item means were generally close to the midpoint of the scale (i.e., 2.5) and the standard deviations were close to 1.0 (Harter, 1982).

We also examined the endorsement frequencies for the questionnaire items--that is, the percentage of children assigning high (i.e., 3 or 4) versus low (i.e., 1 or 2) ratings to each item. Hertzberger and her colleagues (Hertzberger, Linney, Seidman, & Rappaport, 1979) have suggested a criterion of 90%-10% for adequate item endorsement on a 2-point scale, with more extreme patterns lacking adequate variability. For both formats, the endorsement patterns were fairly balanced for the performance, avoidance, and rule-oriented items, indicating that children were making use of the full range of points on the rating scale. The relationship items, however, tended to be positively skewed--that is, a relatively large percentage of children gave high ratings to these items. This skewing was particularly extreme for the Likert format, and a number of these items failed to meet the 90%-10% criterion. These findings suggest that the differences between the two response formats are not large. However, the Harter format may have an advantage over the Likert format in reducing social desirability biases, at least with respect to the relationships items.

In addition to establishing the psychometric adequacy of the goals measure, we were interested in examining individual differences in children's game-playing goals with respect to grade level, sex, and sociometric status. In our first study, we administered a sociometric rating scale on which children rated how much they liked to play with each of their classmates. We then divided children into low-status and high-status groups on the basis of a mean split on the standardized play rating received from same-sex peers. Grade level, sex, and sociometric status differences were examined using a multivariate analysis of variance. For purposes of this analysis, we computed factor scale scores for the goals measure corresponding to each of the four goal types. This score was calculated by averaging the ratings for the items within each factor. Only those items with factor loadings above .40 were included in order to enhance the conceptual clarity of the scores. Each scale was found to be internally consistent, with alpha coefficients ranging from .81 to .84.

The results of the analysis revealed interesting grade level and sociometric status differences in children's game-playing goals. With respect to grade level, we found that younger (i.e., third and fourth grade) and older (i.e., fifth and sixth grade) children differed significantly with respect to each of the four goal types. These results are graphed in Figure 3. As can be seen, younger children, as compared to older children, placed less importance on performance goals, and more importance on relationship goals and rule-oriented goals. Younger children were also more likely than older children to endorse avoidant goals.

With respect to sociometric status differences, we found that low status children were significantly more avoidant in their goal orientation than high-status children and were also significantly less likely to endorse relationship

goals. It should be noted, however, that there was a significant grade by status interaction indicating that the status differences with respect to the relationship goal varied according to grade level. As shown in Figure 4, high-status children were more relationship oriented than low-status children at the third-fourth grade level, but there was no status difference in relationship orientation at the fifth-sixth grade level. Interestingly, a contrasting trend was found for the performance goal. In Figure 5, it can be seen that younger high-status children were less performance oriented than their low-status counterparts, whereas high- and low-status older children did not differ in performance orientation. It appears, then that the positive contribution of relationship goals to peer status declines over grade as does the negative contribution of performance goals.

These data highlight the need to consider developmental differences in examining the determinants of social competence in children's peer relations. Our findings suggest that there are developmental differences both in the kinds of goals children consider to be important in game-playing situations and in the adaptiveness of particular goals for establishing positive peer relationships. In future work, it would be informative to extend our examination of goals and peer status to adolescents as well as earlier elementary school children.

A final finding of this research was that there were highly significant sex differences in children's goal orientations. As can be seen in Figure 6, these differences tended to parallel the grade level trends. Like younger children, females, as compared to males, placed less importance on performance goals, more importance on relationship goals, and reported more concerns about avoiding negative game experiences. These data are congruent with earlier research concerning sex differences in social orientation and achievement motivation (e.g., Ford, 1982; Parsons & Goff, 1980). It is interesting to note, however, that

there was not a significant sex by status interaction, suggesting that the relationship between goals and peer status does not differ significantly for males and females.

In summary, our research indicates that a focus on children's game-playing goals helps us to understand individual differences in children's social competence and peer relationships. In future work, we plan to assess the stability of children's goals and to explore the social-cognitive and behavioral correlates of particular goal orientations. The research we have presented here provides support for further inquiry into the social-cognitive and motivational-affective components of social competence.

Asher, S.R., & Renshaw, P.D. (1981). Children without friends: Social knowledge and social skill training. In S.R. Asher & J.M. Gottman (Eds.), The development of children's friendships (pp. 273-296). New York: Cambridge University Press.

Dodge, K.A. (1980). Social cognition and children's aggressive behavior. Child Development, 51, 162-170.

Dodge, K.A. & Frame, C.L. (1982). Social cognitive biases and deficits in aggressive boys. Child Development, 53, 620-635.

Dweck, C.S., & Bempechat, J. (1983). Children's theories of intelligence: Consequences for learning. In S.G. Paris, G.M. Olson, & H.W. Stevenson (Eds.), Learning and motivation in the classroom (pp. 239-256). Hillsdale, NJ: Erlbaum.

Dweck, C.S., & Elliott, E.S. (1983). Achievement motivation. In P. Mussen (Ed.), The handbook of child psychology (4th ed., Vol., 4, pp. 643-691). New York: Wiley.

Ford, M.E. (1982). Social cognition and social competence in adolescence. Developmental Psychology, 18, 323-340.

Harter, S. (1982). The perceived competence scale for children. Child Development, 53, 87-97.

Hertzberger, S.D., Linney, J.A., Seidman, E., & Rappaport, J. (1979). Preschool and primary locus of control scale: Is it ready for use? Developmental Psychology, 15, 320-324.

Ladd, G.W., & Oden, S.L. (1979). The relationship between peer acceptance and children's ideas about helpfulness. Child Development, 50, 402-408.

Maehr, M.L. (1984). Meaning and motivation: Toward a theory of personal investment. In R. Ames & C. Ames (Eds.), Research in motivation and education (Vol. 1). New York: Academic Press.

Maehr, M.L. & Nicholls, J.G. (1980). Culture and achievement motivation: A second look. In N. Warren (Ed.), Studies in cross-cultural psychology (Vol.3). New York: Academic Press.

Nakamura, C.Y., & Finck, D.N. (1980). Relative effectiveness of socially-oriented and task-oriented children and predictability of their behaviors. Monographs of the Society for Research in Child Development, 45, (3-4, Serial No. 185).

O'Malley, J. (1977). Research perspective on social competence. Merrill-Palmer Quarterly, 23, 29-44.

Renshaw, P.D., & Asher, S.R. (1983). Children's goals and strategies for social interaction. Merrill-Palmer Quarterly, 29, 353-374.

Taylor, A.R. (1982). Social competence and interpersonal relations between retarded and nonretarded children. In N.R. Ellis (Ed.), International review of research in mental retardation (Vol. 11, pp. 247-283). New York: Academic Press.

Taylor, A.R., & Asher, S.R. (1984). Children's goals and social competence: Individual differences in a game-playing context. In T. Field, J.L. Roopnarine, & M. Segal (Eds.), Friendships in normal and handicapped children. Norwood, NJ: Ablex.

Weinstein, E. (1969). The development of interpersonal competence. In D.A. Goslin (Ed.), Handbook of socialization theory and research (pp. 753-775). Chicago: Rand McNally.

Table 1

Factor Pattern of Items on the Game-Playing Goals Questionnaire

Item Abbreviation	Factors 1	2	3	4
PERFORMANCE:				
18. Being one of the best players (P+)	.67			
25. Try to beat other players (P+)	.61			
10. Kids think you're a good player (P+)	.54			
36. Show kids you can play well (P+)	.52			
5. Being one of first ones chosen (P+)	.52			
1. Winning is important (P+)	.50			
29. Losing spoils fun of game (P+)	.50			
42. Play games you're good at (P+)	.50			
50. Like to go first in game (D)	.49			
39. Disappointed when don't play your best (P+)	.44			
47. Get as many turns as other kids (D)	.41			
* 31. Like to keep getting better at games (TM)	.36	(.34)		
* 43. Think about whether you're doing better (TM)	.34	(.35)		
* 40. Don't let others tell you what to do (SP)	.31			
* 8. Might not play as well as others (P-)	.30			
* 2. Like being the leader in games (D)	.24			
* 35. Don't let others push you around (SP)	.24			

Table 1 (Continued)

Item Abbreviation	Factors 1	2	3	4
RELATIONSHIP:				
48. Try to help other kids (R+)		.63		
38. Everyone gets a chance to play (RO)		.61		
30. Everyone has a good time (R+)		.60		
44. Get along well with others (R+)		.60		
22. Learn to do new things (TM)		.56		
24. Get to make new friends (R+)		.55		
3. Get to know other kids better (R+)		.46		
28. Everyone agrees on the rules (RO)		.46		
12. Get back at kid who bumps or pushes (SP)	(.39)	-.42		
34. Kids think you're fun to play with (R+)		.41		
* 6. Everyone gets their turn (RO)		.35		
* 14. Get to do things with friends (R+)		.33		
* 7. Being well liked (R+)		.29		
* 4. Like to try new games (TM)		.28		
* 9. Like to play games that are difficult (TM)		.20		
AVOIDANCE:				
45. Kids might think you're clumsy (P-)			.65	
37. Kids might tease (R-)			.63	
49. Kids might not like you (R-)			.60	
41. Kids might not want to play with you (R-)			.59	
19. Kids might be mean (R-)			.57	
26. Game might be too hard (P-)			.55	
23. Might not be good at game (P-)			.52	
27. Might get left out of game (P-)			.51	
32. Might get into arguments (R-)			.49	
16. Kids might play too rough (R-)			.48	
11. Might not get chosen (R-)			.43	
* 33. Might be one of last ones chosen (P-)	(.36)		.38	
* 13. Worry about messing up (P-)	(.33)		.33	

Table 1 (Continued)

Item Abbreviation	Factors 1	2	3	4
RULE-ORIENTED:				
17. Make sure others don't cheat (RO)				.54
20. Everyone plays by the rules (RO)				.50
46. Upset when kids don't play fair (RO)				.43
* 21. Tell others how to play (D)				.27
* 15. Like to decide the rules (D)				.20

Note: Cross-loadings above .30 are shown in parentheses.

P+ = performance-approach; P- = performance-avoidant; R+ = relationship-approach; RO = rule-oriented; TM = task mastery; SP = self-protection; D = dominance.

* Item not included in factor subscale.

REALLY TRUE	SORT OF TRUE			SORT OF TRUE	REALLY TRUE
☐	☐	For some kids winning the game is really important	BUT Other kids don't care much about winning	☐	☐

Figure 1. Item format for the game-playing goals questionnaire.

	Strongly Disagree	Disagree	Agree	Strongly Agree
Winning the game is really important to me.	☐	☐	☐	☐

Figure 2. Likert format of item from the game-playing goals questionnaire.

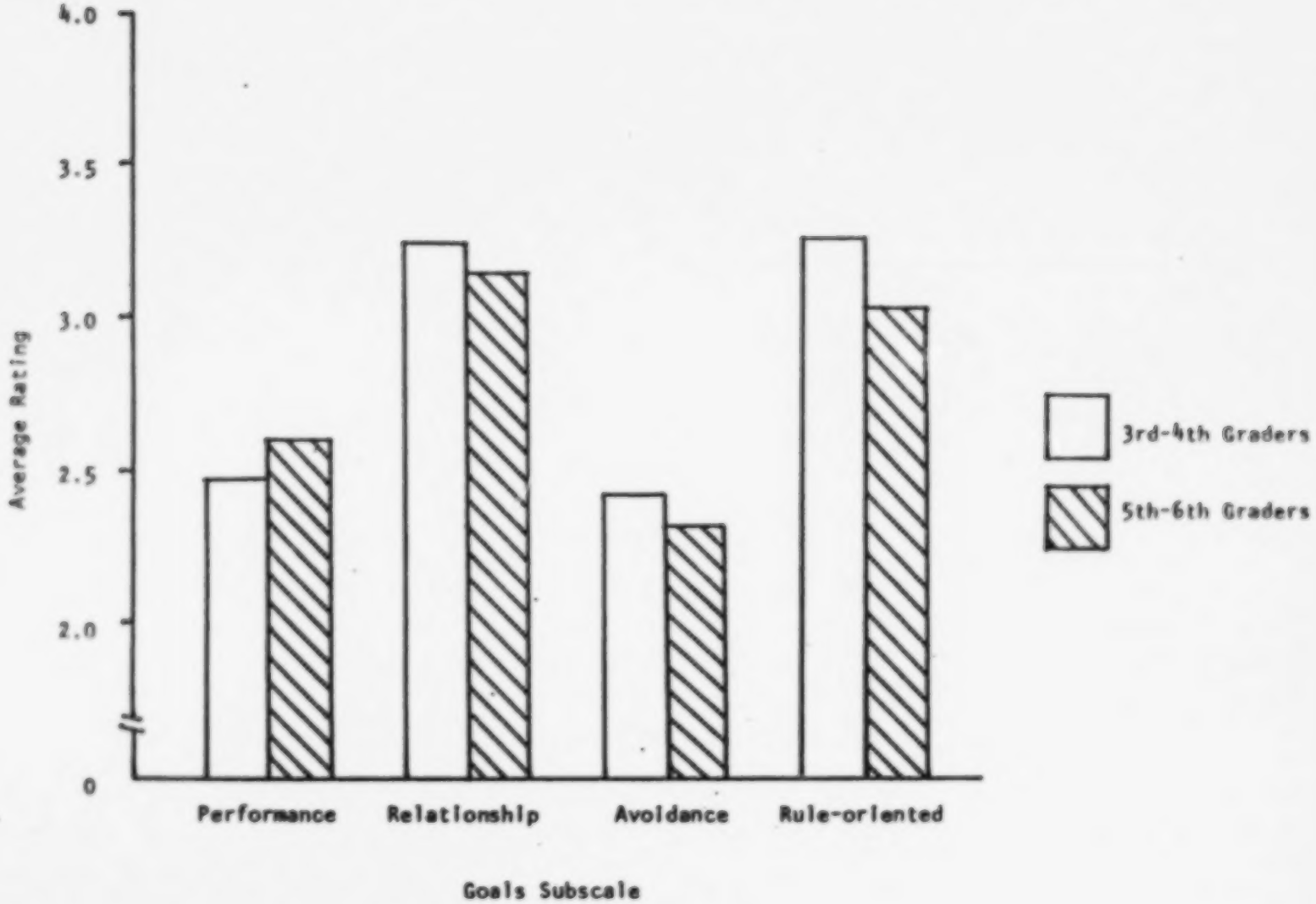

Figure3. Average ratings on the four goals subscales for 3rd-4th graders and 5th-6th graders.

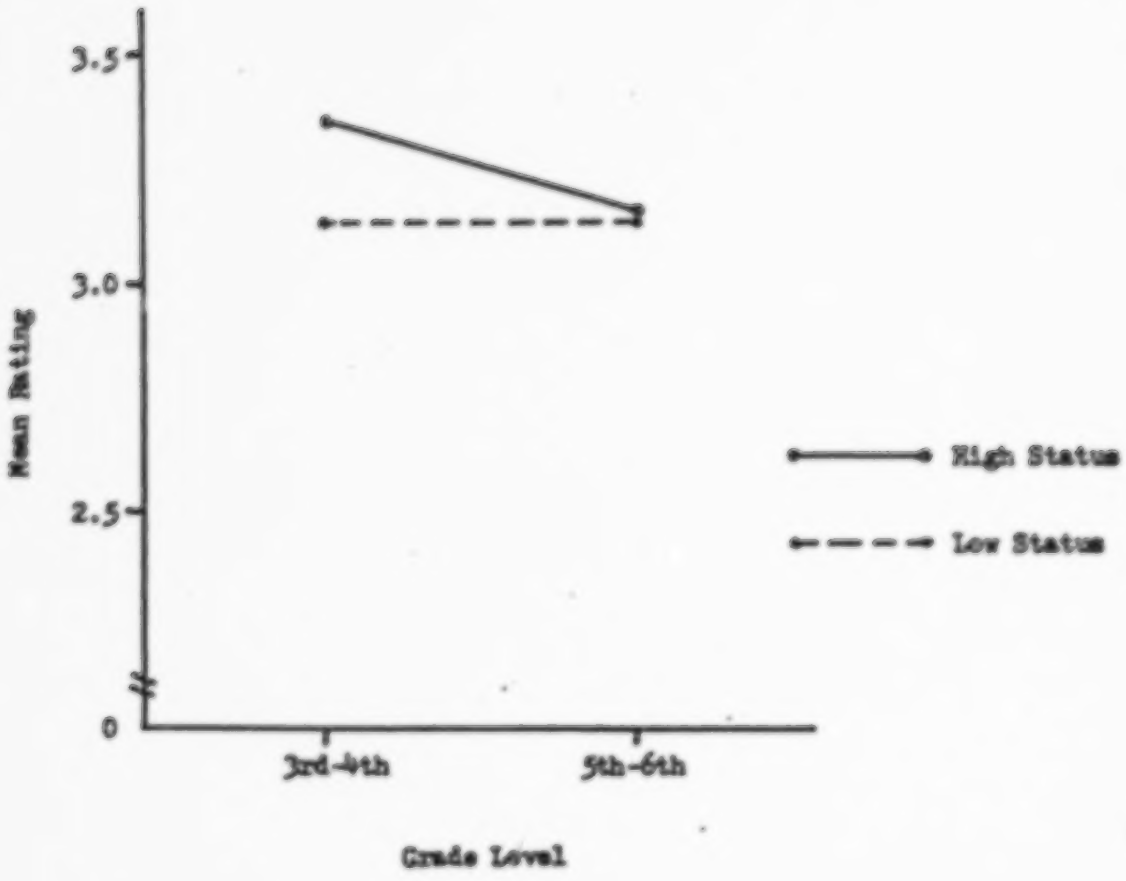

Figure 4. The interaction of sociometric status and grade on the relationship goal subscale.

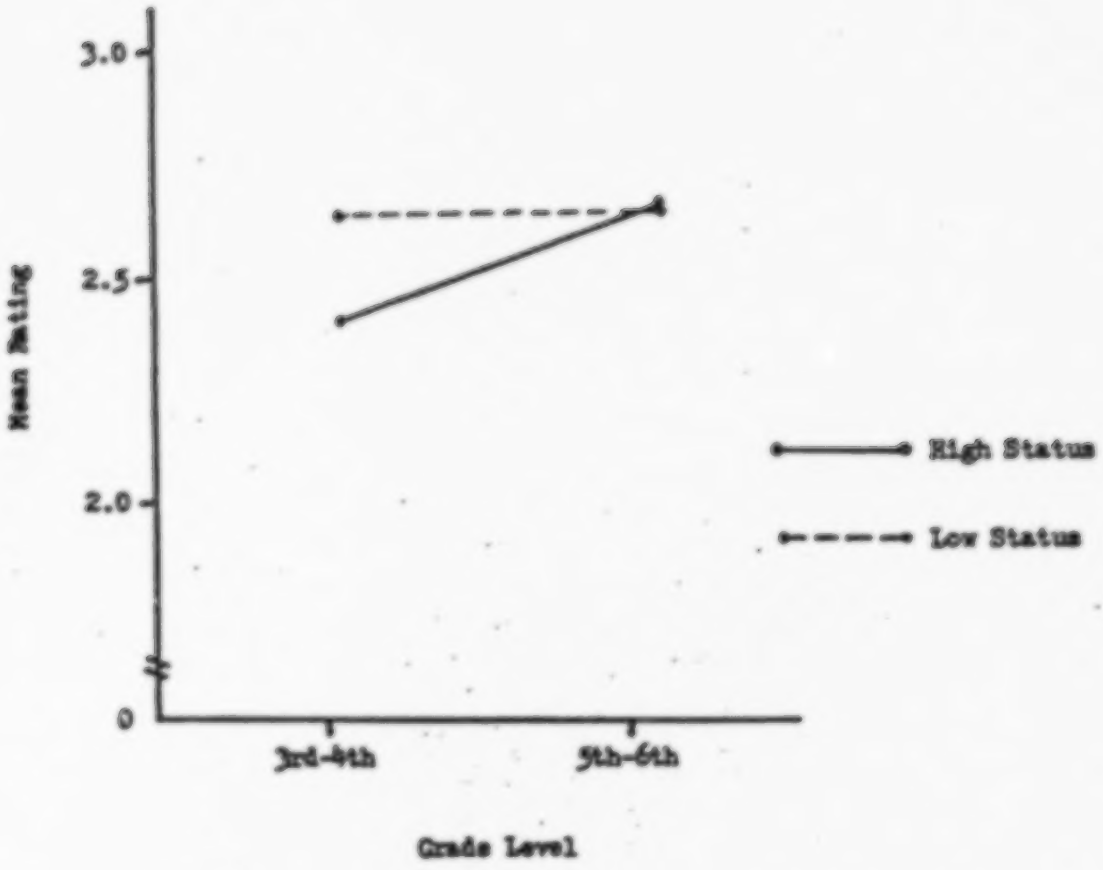

Figure 5. The interaction of sociometric status and grade on the performance goal subscale.

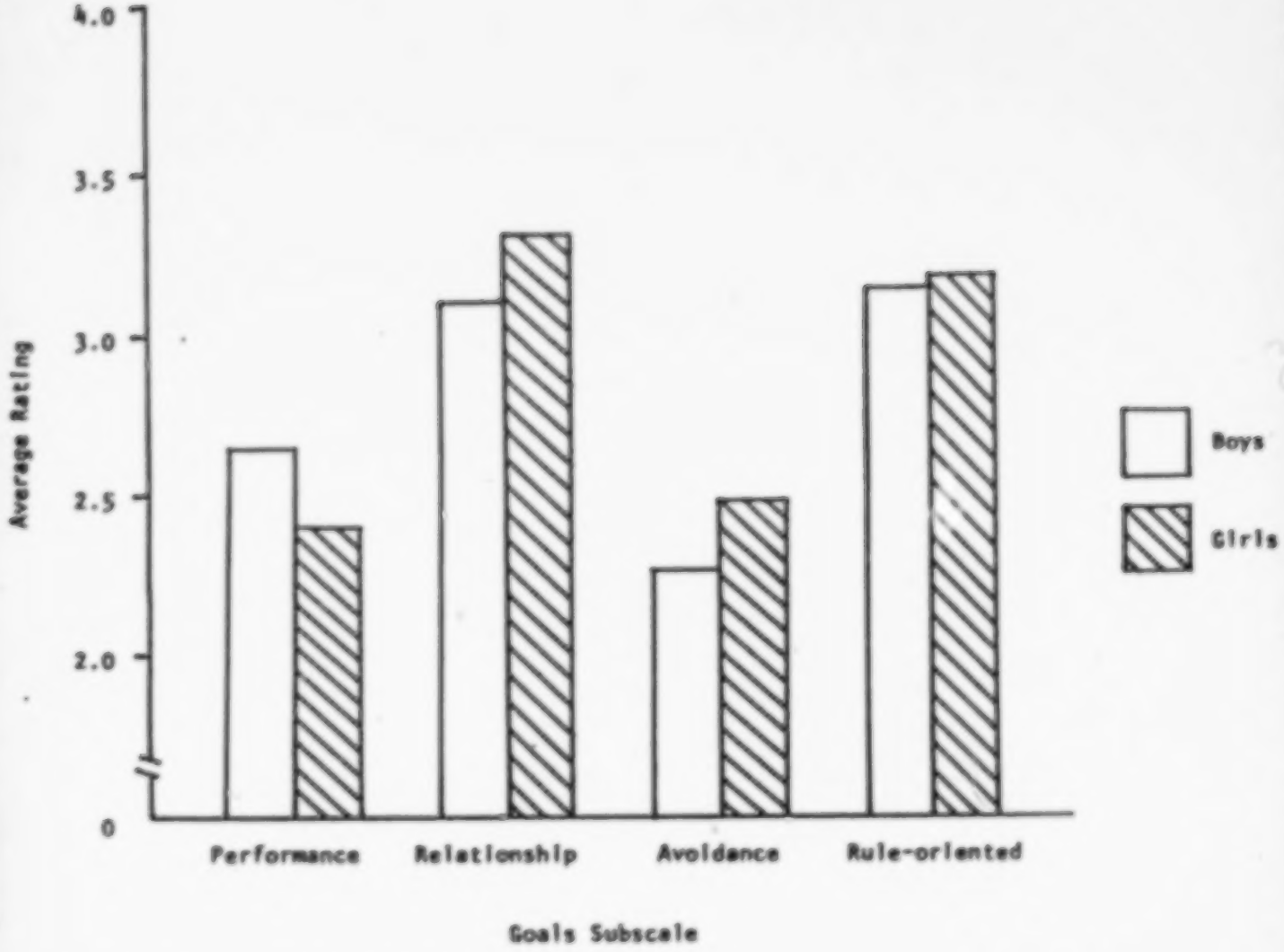

Figure 6. Average ratings on the four goals subscales for boys and girls in third through sixth grade.